

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for vibration damping in a machine tool comprising at least one hydrostatic guide (8) including at least one pocket (1) for supporting a first component (9) on a second component (10), through which an oil flow is passed with a predetermined volume flow and at a predetermined pressure and exits through at least one gap (3), comprising the step of:

damping oscillatory vibration in a machine tool to increase the stiffness of the hydrostatic guide (8) by regulating the oil flow through the gap (3) in response to the loads arising and for achieving a constant width of the gap (3).

Claim 2 (original): The method according to claim 1, characterized in that the oil flow in said pocket (1) is regulated.

Claim 3 (original): The method according to claim 1, characterized in that the oil volume in said pocket (1) is regulated.

Claim 4 (original): The method according to claim 1, characterized in that as the measured variable the oil pressure in said pocket (1) is taken as a basis.

Claim 5 (original): The method according to claim 1, characterized in that as the measured variable the width of said gap (3) is taken as a basis.

Claim 6 (original): The method according to claim 1, characterized in that as input quantities accelerations of components (9, 10) are taken into account.

Claim 7 (original): The method according to claim 6, characterized in that the loads of the hydrostatic guide are pre-calculated on the basis of the accelerations resulting from the movements of components and/or workpieces, and that in response to said values the oil pressure and/or oil flow through the gap (3) that is required for preventing changes in the width of the gap is pre-calculated.

Claim 8 (original): The method according to claim 1, characterized in that the vibration behavior of the machine tool itself is taken into account by predetermining and correspondingly regulating the oil pressure in said pocket (1) or the oil flow through said gap (3) for preventing changes in the width of said gap.

Claim 9 (previously presented): The method according to claim 1, characterized in that the oil pressure and the width of said gap (3) of a plurality of pockets (1) of a plurality of hydrostatic guides are regulated by means of a single control unit to support components and/or workpieces in a substantially stiff manner.

Claim 10 (original): The method according to claim 9, characterized in that the oil pressure and the width of said gap (3) are regulated at the same time with a control unit for executing machining programs of said machine tool.

Claim 11 (canceled)

Claim 12 (original): An apparatus for performing the method according to claim 1, comprising a supply line (6) connected to the pocket (1), characterized by a control valve (4) arranged in said supply line (6).

Claim 13 (original): The apparatus according to claim 12, characterized by a pressure reservoir (5) arranged upstream of said control valve (4).

Claim 14 (original): The apparatus for performing the method according to claim 1, comprising a supply line (6) connected to said pocket (1), characterized by a means arranged in the area of said pocket (1) for changing the volume of said pocket (1).

Claim 15 (original): The apparatus according to claim 14, characterized in that said means comprises a piston-cylinder unit.

Claim 16 (original): The apparatus according to claim 14, characterized in that said means comprises at least one piezoelectric element (19).

Claim 17 (original): A method according to claim 1, characterized in that the oil pressure and/or the oil flow and/or the oil volume of a plurality of pockets (1) of a plurality of hydrostatic guides (8) of a machine tool are regulated by means of a joint control unit.

Claim 18 (original): The method according to claim 17, characterized in that said control unit controls the individual pockets (1) independently of one another.

Claim 19 (original): The method according to claim 17, characterized in that the control unit for the active vibration damping of components of the machine tool processes vibrations arising in the components and/or workpieces as input quantities.

Claim 20 (original): The method according to claim 19, characterized in that the vibrations of the components are vibrations excited outside the components.

Claim 21 (original): The method according to claim 19, characterized in that the vibrations of the components are the natural vibrations thereof.

Claim 22 (original): The method according to claim 19, characterized in that the vibrations arising are measured.

Claim 23 (original): The method according to claim 19, characterized in that the vibrations arising are calculated.

Claim 24 (original): The method according to claim 17, characterized in that the control unit processes and compensates dimensional deviations of said guides (8) as input quantities.

Claim 25 (original): The method according to claim 24, characterized in that the dimensional deviations are measured and the measured values are supplied to the control unit.

Claim 26 (original): The method according to claim 25, characterized in that the dimensional deviations are measured in advance, stored in a memory and the measured values are supplied to the control unit during operation of the machine tool.

Claim 27 (original): The method according to claim 24, characterized in that the dimensional deviations are calculated.

Claim 28 (currently amended): A method for vibration damping in a machine tool comprising at least one hydrostatic guide (8) including at least one pocket (1) for supporting a first component (9) on a second component (10), through which an oil flow is passed with a

predetermined volume flow and at a predetermined pressure and exits through at least one gap (3), comprising the steps of:

regulating oil flow through the gap (3) in response to the loads arising and for achieving a constant width of the gap (3);

pre-calculating the loads on the basis of the accelerations resulting from the movements of components and/or workpieces; and

pre-calculating the oil pressure and/or oil flow through the gap (3) that is required for preventing changes in the width of the gap in response to the pre-calculated loads.

Claim 29 (currently amended): A method for vibration damping in a machine tool comprising at least one hydrostatic guide (8) including at least one pocket (1) for supporting a first component (9) on a second component (10), through which an oil flow is passed with a predetermined volume flow and at a predetermined pressure and exits through at least one gap (3), comprising the steps of:

regulating oil flow through the gap (3) in response to the loads arising and for achieving a constant width of the gap (3); and

accounting for the vibration behavior of the machine tool by predetermining and correspondingly regulating the oil pressure in said pocket (1) or the oil flow through said gap (3) for preventing changes in the width of said gap.

Claim 30 (currently amended): A method for vibration damping in a machine tool comprising at least one hydrostatic guide (8) including at least one pocket (1) for supporting a first component (9) on a second component (10), through which an oil flow is passed with a predetermined volume flow and at a predetermined pressure and exits through at least one gap (3), comprising the steps of:

damping oscillatory vibration in a machine tool to increase the stiffness of the hydrostatic guide (8) by regulating oil flow through the gap (3) in response to the loads arising and for achieving a constant width of the gap (3); and

regulating the oil pressure and the width of said gap (3) of a plurality of pockets (1) of a plurality of hydrostatic guides by means of a single control unit to support components and/or workpieces in a substantially stiff manner, wherein control of the oil pressure and of the width of said gap (3) compensates deformations arising in components of the machine tool.